

Update on the SRM MoU Addendum features

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Outline

- Summary of the requirements and of the experiment priorities
- Missing features by priority
 - 0 = useless
 - 1 = if available, it could allow for more functionality in data management, or better performance, or easier operations, but it is not critical
 - 2 = critical: it should be implemented as soon as possible and its lack causes a significant degradation of functionality / performance / operations
 - Fractional values will also be used...

Summary of the requirements

- All the relevant information is from now on on the web
 - <https://twiki.cern.ch/twiki/bin/view/LCG/SrmMoUStatus>
- Several implementation details are given
- The page will be kept up to date

Protection of spaces

- Implementation
 - CASTOR: **yes**, but **not by DN/FQAN**
 - dCache: **only tape protection** (by **DN/FQAN**)
 - DPM: **only Write-To-Space**
- Priorities
 - ATLAS: 2: extremely important
 - CMS: 1: protect spaces dedicated to special activities (e.g. T1D0 at T1)
 - LHCb: 1: needed for better data protection

Full VOMS awareness

- Implementation
 - CASTOR: **no**, no estimate of availability
- Priorities
 - ATLAS: 1.5: very important...
 - CMS: 1: easier management of access privileges
 - LHCb: 1: needed for better data protection

Select spaces for read operations

- Implementation
 - dCache: **no**, not foreseen at the time
 - StoRM: **no**, not foreseen (but ok for T2's)
- Priorities
 - ATLAS: 1
 - CMS: 1: to enable use of space tokens at all T1s
 - LHCb: 1: needed to understand data movement and used disk space

Ls returns all space tokens with a copy of the file

- Implementation
 - CASTOR: **not yet**
 - dCache/StoRM: **no**, but files can be in one space only
- Priority
 - ATLAS: 0.5
 - CMS: 1: to understand where a file is
 - LHCb: 0.5

GFAL/lcg-util

- All above features are accessible via GFAL/lcg-util

File pinning

- Implementation
 - CASTOR; only (very) soft pinning
- Priority
 - ATLAS: 2: essential; soft pinning acceptable in view of the upcoming Prestage Service
 - CMS: 2: essential
 - LHCb: 2: essential. Soft pinning can be accepted but must have a real effect on the probability of a file to be garbage collected

Other requirements

- Scalability and stability (CMS)
 - Main issues at Tier-2's
 - It is required that the SRM front-end should guarantee that the activity of a single user could not disrupt the service

Missing features by priority

- **Extremely important**
 - Space protection
 - But at least **tape protection** is available everywhere
 - File pinning
 - On CASTOR is **almost non-existent**
- **Rather important**
 - VOMS awareness
 - **Missing** from CASTOR
- **Useful**
 - Target space selection
 - Missing in dCache and StoRM
- **Nice to have**
 - Ls returns all spaces with a copy of the file
 - Missing in CASTOR (where it makes sense)

Conclusions

- Everything considered, file pinning and VOMS awareness on CASTOR have the highest weight and require a significant development (probably)
- Everything else (from the MoU addendum at least!) is more or less acceptable, or one can survive without
- Please contact me to prioritize other requirements!
 - To be collected on the Twiki